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# Reclamation of Swamp Lands and the Modern Drainage Bond

By J. SHEPPARD SMITH

Vice-President, Mississippi Valley Trust Company, St. Louis;

Chairman, Reclamation Securities Committee, Investment Bankers Association  
of America, 1913-1919

## AMOUNT OF SWAMP LAND TO BE RECLAIMED

**I**N the development of our country it was only natural that the farm lands which were more readily susceptible to cultivation should have been occupied first, and that the overflowed and swamp lands should have been overlooked entirely for years. It was only after the absorption of the more desirable farming land, which resulted from the increase of population, and after the consequent and more intensive development of the country, that attention was directed to the reclaiming of the overflowed lands, and that human ingenuity made it possible to bring such land under cultivation. These swamp and overflowed lands awaiting reclamation, it is estimated, total 125,000 square miles, which is more than two and-one-half times the area of the entire state of Illinois, and if reclaimed would afford homes for 12,500,000 persons. At a valuation of \$100 per acre, \$8,000,000,000 would be added to the wealth of the nation.

## ATTITUDE OF THE GOVERNMENT TOWARD RECLAMATION

While the vast opportunities afforded in this direction are not altogether generally appreciated, the United States government in recent years has

recognized the importance of the subject and has provided, through the United States Reclamation Branch of the Agricultural Department, a means of scientific study of the question. This department, under the management of intelligent and efficient experts, has made progress both in the education of the people at large, and in the improvement of the means by which this acreage could be more readily reclaimed. The National Drainage Congress, whose membership embraces some of the best authorities on the subject, has, through the earnest and efficient work of its officers and members, and by the influence of its annual conventions, attracted national attention and contributed greatly to the further development of the work.

## DISTRIBUTION OF THE SWAMP LANDS IN THE UNITED STATES

While these unreclaimed lands are scattered throughout practically every state of the Union, there is a particularly large acreage in those states tributary to and drained by the Mississippi River, known as the Mississippi Valley, the area of which is 1,240,050 square miles, a little less than 50 per cent of the entire area of the United States, and in excess of the total area of all the countries of the European

belligerents, excepting Russia. Of the 27,800 miles of navigable waterways in the United States, the Mississippi Valley system contains 15,000 miles. In the states embraced in this valley there are yet millions of acres awaiting development. In the state of Louisiana, alone, there are said to be 10,196,605 acres of swamp or marsh lands which should be drained either wholly or in part; in Arkansas, 5,912,300 acres; in Mississippi, 5,760,200 acres; in Missouri, 2,439,600 acres; and in Alabama, 1,479,200 acres. Such lands, with their rich alluvial soil, are, when reclaimed, exceptionally fertile and possess even greater agricultural possibilities than those more fortunately situated by nature. These lands are either swamp or marsh. Swamp lands are those which are under water at only certain seasons of the year and are sufficiently free from overflow at other periods to give the forest trees a chance to grow and develop. Marsh lands are those which are under water almost the entire season, and, therefore, have no growth upon them except grasses and water plants.

#### DRAINAGE PROBLEMS

Drainage problems may be divided into two classes, namely, gravity and pumping. Gravity projects are those where the drainage may be accomplished by a natural flow of the water into main and lateral ditches provided for its outlet. Pumping projects are those where it is necessary, on account of the district being below the water level, to remove the water by means of pumping. The latter are by far the most difficult and expensive problems, both in their original construction and subsequent maintenance and operation.

#### EARLY ATTEMPTS AT DRAINAGE

The first attempts at drainage were entirely by individual efforts, and these, for manifest reasons, largely proved unsatisfactory, and were followed by a coöperative effort on the part of various land holders whose properties were contiguous to each other. Necessarily the progress in its early stages was slow and many difficulties were encountered. To begin with, it was difficult for the interested parties to unite on a plan that would be satisfactory to all concerned, and at the same time secure the outlet for the drainage, where it was necessary to carry the ditches across the lands of those who were not benefited by the project, as well as to agree on the personnel of the organization under whose auspices the work was to be conducted. Difficulties, too, presented themselves in adjusting the benefits or damages that would accrue to the landowners therein. While these efforts, in the majority of instances, were not successful, they were the means through which the attention of the various states was attracted to the importance of the subject.

#### ORGANIZATION OF MODERN DRAINAGE DISTRICTS

It became evident that if anything was to be accomplished on a comprehensive basis it would be necessary to form drainage districts into political sub divisions, or at least into public corporations with proper power under the law to form the necessary organizations with which to conduct the work on an intelligent basis, and to subject the land contained therein to an equitable tax in proportion to the benefits received, as determined by an authoritative source. To assess the benefits

therein and determine the damages on surrounding territory, proper measures were enacted by the various legislative bodies which have resulted in the creation of the modern drainage district as a municipal corporation capable of issuing tax secured bonds. These laws differ in some of their essential features in the various states, and in quite a number of states several different drainage acts exist. Nearly every state at this time possesses satisfactory drainage laws. It is to be regretted that no systematic record has been kept by the various states as to the amount of bonds issued and outstanding, nor as to the number of acres of land reclaimed. As a consequence, no accurate data can be given on the subject. In 1916 the Reclamation Securities Committee, of the Investment Bankers Association, made a determined effort to collect such statistics, but found that, in view of the above facts, it was impossible of accomplishment.

#### THE CIRCUIT COURT DRAINAGE ACT OF MISSOURI

As a concrete case it may be desirable to outline the salient features of the principal drainage act in Missouri. This state possesses a drainage law as good as, if not better, than any of the other states; in fact, several of the states have to a large extent followed the Missouri act in the framing of their laws.

While there are several such acts in existence in this state, the one most commonly used is known as the Circuit Court Drainage Act, passed in 1913. This provides that the owners of a majority of the acreage in any contiguous body of swamp or over-

flowed land, situated in one or more counties in the state, may form a drainage district, for the purpose of reclaiming such lands, by framing articles of association in which is contained a full description of the lands sought to be included in the district as provided by the act, together with the names of the owners of the same, who thereby obligate themselves to pay a tax which may be assessed against their respective lands and to pay the expenses of organizing and of making and maintaining improvements. These articles are filed in the office of the clerk of the circuit court of the county, or, in the event of the lands being situated in more than one county, in the county in which the larger portion of the land is situated.

Proper notice by newspaper publication, as prescribed by the statute, is then given, by which the persons interested are notified to appear at court and show cause why the district should not be organized. If the court over rules the objections the district is organized and declared a public corporation. A certified copy of the decree is filed with the secretary of the state within sixty days, and in the office of the recorder of deeds in each county having lands in the district.

A meeting of the landholders is then held, through proper published notice, giving ample time to interested parties to appear, at which meeting a board of supervisors consisting of five landholders is elected, two of whom must be residents of the counties having lands in the district. Each landholder is entitled to one vote for each acre of land owned by him, either in person or by proxy. The persons elected to the board determine by lot their terms of

office, which are one, two, three, four and five years, respectively. Each succeeding year one member of the board is elected for five years, to fill the term of the retiring member. Proper oath is required for the faithful performance of his duties. The board elects its own president and secretary, and must adopt a seal and keep a record of its proceedings. It likewise appoints a competent civil engineer who may, with the approval of the board, appoint assistants and consult with others. The engineer so appointed must survey the lands, file with the board annual reports which shall contain maps and profiles of the surveys, and a plan for reclamation of the lands, which, if adopted by the board, becomes the plan for reclamation. A preliminary tax of not to exceed fifty cents per acre may be levied on all lands in or next to the district to provide for the payment of necessary organization expenses. Within twenty days after the adoption of the plan, the secretary of the board files a certified copy thereof with the clerk of the circuit court, and the board thereupon must ask the court to appoint three commissioners to assess the benefits and damages, who must reside in the state and must not be the owners of any land in the district, nor be related, within the fourth degree of consanguinity, to any landowner therein. A majority of the commissioners control on all questions. Proper oath is taken, in writing, for the faithful discharge of their duties, at a meeting held within ten days after notice of their appointment by the circuit clerk. The secretary of the board of supervisors is ex-officio secretary of this board and is required to

attend all meetings and to furnish the necessary information as required by the statute. Their duties begin within thirty days after qualifying. The premises are viewed, the benefits are assessed and the damages adjudged. Public roads, railroads, etc., are assessed according to increased physical efficiency and decreased cost of maintenance. The commissioners cannot change the plan of reclamation.

Proper notice is then given by the clerk of the circuit court by publication, in accordance with the statute. Exceptions may be filed by landowners within ten days from the date of the last publication of the notice. The court then confirms or dissolves the organization. If dissolved, a uniform tax is levied to pay the costs incurred. If confirmed, a certified copy of the decree is furnished to the secretary of the board of supervisors, who, in turn, files a copy in each county having lands in the district. Appeals are allowed only on the two following questions: First, whether just compensation has been allowed for property appropriated; second, whether proper damages have been allowed for property prejudicially affected. Broad powers are given the board of supervisors to construct the necessary improvements or to let the contracts. Proper bond must be given by each contractor, for the faithful performance of the work. The engineer must make a full report once each year to the board, upon the work done, with such suggestions as he may deem proper.

A tax is promptly levied by the board on each tract of land benefited, in proportion to the benefits assessed, sufficient to pay the cost of executing the plan, plus 10 per cent for emergen-

cies, together with the interest which will accrue on the bonds then issued. This is certified in book form by the president and secretary of the board and made a permanent record with proper seal affixed. Each year the board levies such a part of the taxes as may be necessary, which is collected by the collector of the county in the same manner as other taxes, full information being given him by the district. He must furnish proper bond, and penalties are provided for his failure to return the proceeds promptly to the district. The tax so levied, together with the penalties for non-payment, becomes a lien upon each tract, second only to the liens for state and county taxes. Action for collection of delinquent taxes must be instituted, within six months after December 31 of each year, under the same procedure as in state and county taxes. Title acquired at foreclosure sale is liable to payment of future annual levies. Should the proceeds from the sale of any land for delinquent taxes prove insufficient to pay the tax, the board has the right to reassess the entire district to cover such deficiency.

Proper bond is given by the treasurer and his accounts must be audited annually. The board exercises full jurisdiction over all matters and has the right of eminent domain either within or without the district, in accordance with the provisions of the statute. Actions under this act do not abate by reason of the death of any landowner. Proper notice, however, is given to the heirs at law, in accordance with the statute. Neither does any appeal delay any work. The board of supervisors may petition the court to amend or change the incor-

poration decree. Objections may be filed, which are promptly determined by the court.

Bonds may be issued not to exceed 90 per cent of the total taxes levied, with interest not exceeding 6 per cent per annum, payable semi-annually, maturing serially within twenty years, beginning not later than five years after date. Such bonds cannot be sold at a price less than ninety-five cents on the dollar, and accrued interest. In the event the tax levy proves insufficient to pay the bonds and interest, the board must make a sufficient additional levy not exceeding, however, the aggregates of the benefits already adjudicated. Each year the board levies a maintenance tax to pay current expenses and maintain the improvement in repair, and this tax is limited to 10 per cent of the net benefits. The owners of 25 per cent or more of the acreage may petition the organizing court for a readjustment of the assessment of benefits when any material change of property values has transpired, but as a basis, only, in levying the maintenance tax. Proper notice of such petition is given to landholders. If the court orders a readjustment, commissioners are appointed with full powers to act.

Two or more adjacent districts may unite, providing proper notice is given to each landowner therein, and a majority of the acreage votes favorably. In this event the petition is presented to the court in the county containing the largest acreage. Objections may be filed and the court acts in the same manner as upon petition on original organization. The board may extend the corporate life of the district by calling an election and receiving the

assent of the majority of the acreage represented.

Should the executed plan of reclamation prove insufficient, amended plans may be designed and additional assessments made, or if the tax levy should prove insufficient an additional levy may be made not exceeding the total benefits. The board may also remove at pleasure any officer, attorney or employee. The board may add additional land to the district, provided, however, that after the completion of the plan this cannot be done without the written consent of the board and the approval of the district engineer. Landowners so desiring, or the district itself, may petition the court for annexation of additional lands, and from the court's decision an appeal may be prosecuted by the landowners or the district.

Districts organized under any previous law may elect to come under the provisions of this act, under the same procedure as in the creation of a new district.

Attention might be especially directed to that portion of the statute which prescribes that, in the event of failure of the proceeds resulting from the sale of land for taxes proving sufficient to pay the delinquent taxes, the board of supervisors has the right to levy an additional tax on the entire district to make up the deficit, and which, in effect, provides a thorough safeguard to the investor for the full payment of principal and interest in accordance with the tenor of the bonds.

#### DRAINAGE LAWS OF MISSOURI AND ARKANSAS COMPARED

While, as stated, nearly every state possesses satisfactory drainage laws,

it might be of interest, merely as a matter of comparison, to mention the differences between the laws of Missouri and Arkansas—two adjoining states, whose laws, while both excellent, differ to some extent in some of their essential features, which differences are recited below.

#### *Organization of District*

In Arkansas the petition praying for organization need be signed only by three or more owners. In Missouri it is necessary that it be signed by owners of a majority of the acreage. In Arkansas, if the district lies wholly within one county, the petition is presented to the county court. If it lies in two or more counties, it is presented to the circuit court of that county embracing the largest amount of land. In Missouri it is presented to the circuit court in all cases. In Missouri the supervisors may levy an organization-tax of not exceeding fifty cents on the acreage. In Arkansas there is no such provision. In Missouri all those signing the petition obligate themselves to pay the tax, and the case cannot be dismissed as to any one of the signers without the consent of all his co-signers.

#### *Determination of the Plan of Reclamation and the Assessment of Damages and Benefits*

In Arkansas the court appoints three commissioners who, assisted by an engineer, view the land, determine the plan of reclamation, and assess the damages and the benefits to the land embraced in the district. In Missouri the court appoints five supervisors who constitute the governing board of the district, and who in turn appoint three

commissioners. These commissioners then view the land and assess the benefits and damages. In assessing benefits they do not consider those benefits which may be derived from any improvements other than those contemplated by the proceedings. The supervisors themselves, with the assistance of an engineer, determine the plan of reclamation which the commissioners have no power to modify. In Arkansas any owner dissatisfied with the assessment of damages may demand an assessment by a jury, providing such demand is made within thirty days after the filing of the assessment.

### *Taxes*

In Arkansas the tax is levied by the commissioners; in Missouri, by the supervisors. (The board of commissioners in Arkansas, corresponds with the board of supervisors in Missouri, and not with the Missouri board of commissioners.) In Arkansas the tax levy may be paid by anyone so desiring within thirty days after the levy, otherwise it is payable in annual installments, but no installment can be for more than 25 per cent of the total amount. In Arkansas the tax is a lien preferred to "demands, executions, encumbrances or liens whatsoever created." In Missouri the tax is a lien inferior only to "general, state, county, school and road taxes."

### *Proceedings for Failure to Pay Tax*

In Missouri the land is sold in the manner provided for enforcement of delinquent taxes. In Arkansas the tax collector reports delinquent taxes to the board of commissioners. They then add 25 per cent to the amount

and bring an action in the chancery court for jurisdiction. If this is not done within sixty days any bondholder may bring such action. An error in the name of the owner is not fatal and the proceedings are strictly in rem. In case of judgment rendered against the land it is offered for sale subject to the lien of the tax due but not paid. In case the land is not sold it is not again offered for one year nor until an attorney *ad litem* has been appointed. He notifies the commissioners or directors of all other improvement districts taxes for which constitute liens against the land, and he also notifies trustees for bondholders of the fact that the land has been offered for sale for delinquent taxes, but has not been sold. Upon the return of his report to this effect the court then orders that the land be sold free of the encumbrances of all other improvement districts subordinate to the lien of the tax for which it is sold, but subject to all subsequent installments of all taxes against it. Any balance from the proceeds of the sale remaining after the tax and court costs have been paid is distributed by the court as seems equitable. If any bond or coupon is not paid within thirty days after maturity, any bondholder may sue in the chancery court for a receiver for the district to collect the taxes and foreclose on the land, paying the proceeds pro-rata among the bondholders.

### *Failure of Collector to Collect*

In Missouri the county collector of taxes must give a bond to the drainage district with two sureties in an amount double any probable assessment to be levied in any one year. In case the collector, for any cause, neglects to



collect the drainage tax, a penalty of 10 per cent of the amount of tax which he has failed to collect is added to that amount and he and his sureties are liable therefor. In Arkansas the collector is fined one hundred dollars for each individual from whom he, for any reason, fails to collect the drainage tax while collecting other taxes. He may be fined a like amount for each person whose tax he fails to record in the drainage tax book.

### *Bonds*

In Arkansas bonds must mature within thirty years; in Missouri, within twenty years. In Missouri bonds must be payable in annual installments in from five to twenty years. In Arkansas they may mature either serially or otherwise.

### *Readjustment of Assessments*

In Arkansas the commissioners may alter the plan of reclamation. The modified plan is filed with the court and notice is given and parties interested are heard and the court enters its finding of fact. If the assessment is thereby rendered inequitable, any land owner who incurs additional damages is allowed such damages, to be paid by the district, but is not allowed to have the benefits assessed against his land to be reduced in the amount of the damages. The original benefits remain unchanged and the land remains liable to taxation up to the amount of such original benefits. Any damages allowed by reason of such change are inferior to the claims of bondholders. In Missouri, upon petition of 25 per cent of the owners stating that there has been a material change of values rendering the assessment of benefits

inequitable, the court, if it finds this to be true, appoints three commissioners who reassess the benefits and, through substantially the same proceedings as in the original assessments, the benefits may be modified and readjusted as is equitable. It may be added that in neither state can any change be made in such a way as to jeopardize the obligation or the security of any bonds that may have been issued.

For many years all drainage statutes were most strictly construed, it being the then current theory that governments could not levy taxes merely to improve lands privately owned, but only to further some distinctly public purpose, or, in the exercise of the police power, to prevent disease, remove nuisances, or conserve the public health. In some states the statutes still require, before a drainage or reclamation project can be initiated, that there must be a court finding that the proposed improvement will be a public utility or that it will promote the public health or prevent disease. In the course of time, however, a more liberal view was obtained, and, with a changing and now sympathetic attitude on the part of the owners of lands which are to be affected and taxed for the improvements, many of these swamps and marshes have been redeemed, and the way is at last open for the reclamation of perhaps all the remainder of such lands.

### SUCCESSFUL DRAINAGE PROJECTS

While many large and successful drainage projects have been undertaken in recent years, by far the largest and most pretentious undertaking has been that of the Little River Drainage

District, located in southeast Missouri. It might be well to give a brief history of this district as an example of what can be accomplished in practical drainage.

*Little River Drainage District in  
Missouri*

The acreage of the Little River Drainage District lies partly in each of the following six counties: Cape Girardeau, Stoddard, Dunklin, Scott, New Madrid and Pemiscot. There are 488,050 acres of land within its boundary lines, embracing territory approximately 90 miles long, with an average width of 10 miles. There are 160 miles of railroads within the district. Not an acre of land is more than six and one-half miles from the railroad, the average distance being three and one-half miles. The land had been subject to overflow from the Little River and the Castor River, the waters of these rivers flowing into the district from the north. This district was organized in 1907. Prior to that time several small drainage districts existed in lands that are located either wholly or in part in the territory now embraced in the above district. It became evident at that time, to some of the larger owners of land in that section, that if this vast acreage was to be reclaimed as a whole, a larger and more comprehensive plan would have to be carried out, and one that would provide not only for the drainage of the land but also for the control and diversion of the waters from the Little and Castor rivers. In order to provide full relief it was necessary to create a diversion channel and retaining basins, which would turn the flow of these waters into the Mississippi

River at the head of the district, thus preventing their overflowing the district at certain periods of the year, which had previously occurred. After proper petitions had been received from a sufficient number of the landowners in this territory, the Little River Drainage District was created in November, 1907; bonds to the amount of \$5,000,000, bearing  $5\frac{1}{2}$  per cent interest were issued, dated April 1, 1913, and maturing serially in annual installments, beginning April 1, 1919, up to and including April 1, 1933.

Necessarily, where such a large acreage was involved, and where portions of previous drainage districts were to be merged into this one, many legal obstacles presented themselves, and it was not until 1913 that these were finally adjudicated, by a decision of the supreme court of the state of Missouri, in favor of the district. While this decision perfected in every respect the legality of the bonds, nevertheless, the issue was further supported by the approving opinion of several of the ablest municipal-bond lawyers in the country. An able board of supervisors had previously been created in accordance with the law, with headquarters at Cape Girardeau, Missouri, which is located about three miles north of the northern boundary of the district. This issue was disposed of in 1914, and the work on the district was then undertaken. On account of the unusual size of the district it had unusual problems to meet. Great care was exercised by the board in its selection of engineers, and besides having its own chief engineer it had the approving opinion, upon the drainage plan inaugurated,

of five of the leading hydraulic engineers of the country.

At the time when this project was first undertaken, approximately 90 per cent of the land was not subject to cultivation; today, about 75 per cent of the land can be cultivated, and within four months it is expected that the work will be fully completed and all the land will be open for cultivation.

It was found in 1918, that, due to the increased cost of operation and additional work found necessary, the proceeds of the \$5,000,000 bond issue would not be sufficient to complete the work. Under the authority of the law an additional \$1,000,000 of bonds were issued and promptly disposed of. It is estimated that before the work is finally completed, another issue of at least one-half million dollars of bonds will be necessary. These bonds, it is expected, will be issued in the early part of 1920, and it is the firm belief that the work upon the district will be finally completed and the drainage plan perfected at least by July 1, 1920. When this work is completed, the land which was almost wholly a dismal swamp, will become a very fertile and rich farming territory.

In 1907, the average value of the lands in the district was \$10 to \$15 per acre. Today, the land will easily average \$75 per acre, while the total bonded debt will, upon completion, be approximately \$14.50 per acre. It will be seen from this that taking the highest average of the land in 1907—namely, \$15 per acre—and adding the bonded debt of \$14.50 per acre, the land has more than doubled in value. It might be well to mention that in some instances land especially well

located in this territory has sold as high as \$225 per acre since the drainage plan was inaugurated. As a further evidence of the improvement in that section as a result of this drainage project, the little town of Bragg City, Missouri, having a population of some five hundred people, with modern buildings and paved streets, is in existence upon a site that was nothing but a swamp in 1914.

In diverting the waters from the Castor and Little rivers to the Mississippi River, great care had to be exercised in the engineering features, particularly regarding the diversion channel and the retaining basins. A spillway was constructed in order to give relief should the impounding of these waters create a greater pressure than the basins could withstand. Unless such relief had been provided the construction might have given way and disastrous consequences to the district would have ensued. Under extreme conditions the spillway provides for a partial overflow of the water into the district, which, though it might result in some partial damage to the crops, would be far better than the greater damage that would be sustained by both life and property in the event of a serious break in any portion of the levee, which might result from too great pressure. It is not anticipated that any such occurrence will transpire, but it was thought essential to provide for such a contingency should it arise.

The payment of the principal and interest of any municipal bond, according to its tenor, is necessarily dependent upon prompt collection of the taxes. It might be interesting to note that since its inception this district has

collected each year approximately 98 per cent of the drainage tax assessed against it, which will unquestionably compare favorably with that of any municipality in the United States, either large or small.

#### MARKET FOR DRAINAGE BONDS

While fifteen years ago drainage bonds had a comparatively narrow market, which was to some extent limited to those states located in the middle west where the drainage problem was better understood, they have gradually increased in popularity, and today enjoy a very substantial position in the eyes of investors throughout the entire country. This has been due to a better and more general knowledge of the subject, and to the record these issues have made in the payment of their principal and interest. Many eastern bond houses, which until a few years ago would not consider handling drainage bonds, are today eagerly buying large issues throughout the entire Mississippi Valley. The fact that such issues bear a higher return on the investment than the general obligations of counties and cities, and possess the same tax exemption features, has made them especially popular. There is no doubt that drainage bonds issued under proper auspices constitute a safe investment. Great care must be exercised, however, upon the part of the investment houses handling such issues. A careful examination of the land must first be made, and it must be determined, beyond any reasonable doubt, that the work to be undertaken will result in an enhancement of the value of the land to a greater degree than the cost of the improvement. It is impor-

tant that at least a majority of the landowners in the district be in favor of the project, as a number of dissatisfied landholders would naturally seize the first opportunity to bring court proceedings and attack the legality of the issue. Such litigation, whether successful or not, would necessarily throw a cloud upon the bonds, and would also result in preventing the investment houses from promptly distributing them, or, in the event of their having been resold, would create uneasiness upon the part of the investors holding them. The amount of the debt per acre represented by the bonds, must necessarily vary in proportion to the value of the land securing the issue. Such debt should, however, always bear a proper and conservative relation to the appraised value of the district.

It should be seen that the affairs of the district are to be handled by a competent corps of officers and supervisors. In a majority of cases the bond houses are now insisting (where the law does not) upon an annual audit of the books of the district, to insure its affairs being kept in proper shape and to prevent the possibility of any loss of funds through defalcation, or otherwise. Above all else, it must be certain that the engineering features have been passed upon by competent and practical engineers. Where any doubt as to the feasibility of the plan exists, consulting engineers should be called in so as to safeguard the project as far as it is possible to do so. Great care should be exercised, also, to see that at least one competent engineer be retained throughout the construction period, in order to see that the work is

properly completed in accordance with the original plan, or, where necessary to make any changes, that such changes should be made under able direction. It is also very essential that the work when completed should be maintained in excellent condition and kept in efficient working order.

The importance of the legal phases should never be overlooked. All conservative and careful dealers in bonds exercise every caution to see that the legal steps in every issue purchased by them have received the approving opinion of a competent legal firm thoroughly experienced in municipal

issues, and in some instances issues are supported by two or three different opinions, especially where any doubt exists in the minds of one firm upon any legal point involved.

Where proper precautions have been taken as suggested above, and the bonds are recommended by a well-known and responsible house, the investor may feel no uneasiness when purchasing, as to the safety of the investment. Drainage bonds, properly issued and conservatively constituted, are a safe investment and are generally recognized as such by those competent to judge.